



BIRD POPULATION — BERKELEY AQUATIC PARK

By DAVID G. NICHOLS

This is one of a series of short notes concerning the birds of the Berkeley Aquatic Park. The purpose of this communication is to review in broad outlines the numbers of individual birds and different species encountered in the area during the four seasons.

The park area consists of an artificial estuary of San Francisco Bay, with a water strip about one mile long varying from 100 to 800 feet wide. The water is brackish; it's level is controlled to some extent by flood gates leading into the bay. The main water surface is surrounded by roads, lawns, ornamental shrub plantings, a few small public buildings (about 35 acres of land in all), and some narrow strips of fresh water pond supporting about 1½ acres of cat-tails, willows, and mixed brush thickets. The eastern edge of the park is contiguous to a heavy industrial area, freight yards, and the main route of the Southern Pacific Railway. The western edge is separated from the bay by the four lane shore highway carrying constant, heavy traffic. Lying almost directly east of the Golden Gate, the area has no shelter from prevailing westerly winds.

The daily bird censuses from which the following figures are derived were made during the one year period March 1939 to March 1940. Although the district surrounding the park has been extensively built up since 1940, several recent counts (made about once a week since the summer of 1950) indicate that the over-all number of species and individuals is essentially the same as it was in 1940. Such differences as do exist will be described in later studies.

During the 1939/40 one year period, a total of 95 different species were seen in the area. This figure includes only those birds which actually spent some time resting or feeding in the park. It does not include those noted flying over (such as the White Pelican) or those which were seen while standing in the park and turning one's glasses out over the bay (such as the Fork-tailed Petrel). A number of rare and interesting birds have been known to occur more or less accidentally in the park during the last ten years; they are not included in the above figure. The constant possibility that something new will drop in from off shore lends interest to daily inspections of the park bird population, but does not alter the fact that, in the course of a year, diligent observation will turn up about 100 common or fairly common species which have at least some biological connection with the park.

The following table shows the number of all the birds recorded for each day; set up in the form of an average figure for each ten day period. During the 36 periods into which the year has been divided an occasional day was omitted due to illness of the observer. It will also be noted that months containing 31 days will have one period of 11, rather than ten days. These slight discrepancies do not effect the significance of the averages herewith set down.

	1-10	11-20	21-31	Month average
January	718	986	855	853
February	802	827	769	799
March	417	448	99	321
April	219	658	539	472
May	318	326	146	285
June	42	61	86	63
July	222	296	195	237
August	122	148	438	236
September	415	608	449	490
October	324	302	635	420
November	1644	1222	1583	1483
December	1256	1206	1131	1198

An inspection of this table reveals the following facts, which fall exactly into line with what we know about the habits of the species which are most abundant in the area. The month of June is the low point in the park's bird year. During this month one can expect to find there only about 65 individual birds. In June the migratory shore birds, winter visiting ducks, and many gulls are removed to their breeding grounds.

At the other end of the cycle we find that the four winter months (November, December, January and February) show a population of not less than 800 birds at any time. This high winter population is largely due to the presence of visiting ducks (Scaup, Pintail, Mallard, Ruddy Ducks, Golden-eye, Coots, and Grebes). The absolute peak of the 1939 population was reached in the first ten day period of November, during which time an average of 1644 birds were noted each day. On the second of November 2997 birds were counted. This late-Fall/early-Winter peak results from the influx of ducks, both those which are on their way elsewhere, combined with the tag end of the shore bird migration. The winter population gradually diminished until late February, at which time there was an abrupt drop, as the ducks began their Spring withdrawal for the breeding grounds.

This general population outline of a summer low and a winter high is modified, as would be expected, by two intermediate peaks, corresponding very nicely to the Spring and Fall shore bird migrations. These peaks occur during the periods 11-20 April and 11-20 September, at which times one may expect to find about 650 individual birds in the area.

The number of species observable at any one time parallels quite simply the number of individuals as set forth above. In Winter (November to February) 32 species were consistently noted, in March and early April—17, in mid-April, during the Spring shore bird migration—25, in June, July, and early August—14, from mid-September through October the number of species gradually climbed from 18 to the winter peak of 32.

It should be stressed again that these data are averages presented for the purpose of outlining the broad picture of the park as a sanctuary. Although primarily interested in counting birds, the writer could not fail to pay some attention to the human population which visited the area. He was strongly impressed by the fact that all ages showed a very considerable interest in the birds. Not only is the Berkeley Aquatic Park an excellent example of the part which urban parks can play in the nation's game refuge network, but it also constitutes a substantial contribution to our badly needed recreational resources. Berkeley, Calif., February, 1951.

April — ALAMEDA SHORE BIRD — Trip

The colorful spring plumage of thousands of shore birds was the sight which greeted 30 members and guests on the April 21st trip to Bay Farm Island. Several Knots were seen loafing on the sandspit along the dyke. The pools along Doolittle Drive produced some fine displays of Avocets and ducks. On the thistles on the filled-in area were several Common Goldfinchs. An excellent view of a Horned Lark was also had in this area.

The following 47 species were observed as compared with 52 species on April 15, 1950:

West. grebe; double-cr. cormorant; gt. bl. heron; mallard, baldpate, pintail, lesser scaup; wh.-wg. and surf scoter; ruddy duck; coot; semipalmated, killdeer, and bk.-bellied plover; long-bl. and Hudsonian curlew; willet; gr. yellow-legs; knot; least and red-bk. sandpiper; dowitcher; west. sandpiper; marbled godwit; sanderling; avocet; glau.-wg., west, Herring, Calif., ring-bl. and Bonaparte gull; Forster and Caspian tern; horned lark; barn swallow; Amer. pipit; house sparrow; west. meadowlark; red-wg. and Brewer blackbird; Calif. purple and house finch; common goldfinch; savannah, gl.-cr., and song sparrow.

— HAROLD G. PETERSON, *Leader and Historian*.

April — PINNACLES OVERNIGHT — Trip

In spite of inclement weather April 28-29, thirteen persons turned out for the first of the new overnight camping trips sponsored by the Golden Gate Audubon Society. Saturday night's shower failed to dampen either the participants or their enthusiasm as, from the shelter of a CCC building, they listened to a poorwill calling and watched mice at work, aided by flashlights.

Sunday's dawn chorus was quite good with the California thrasher starting the day rolling.

Of particular interest was the courtship flight of Say phoebe in which the wingbeat is slowed very noticeably and the breast feathers puffed out. Canyon wrens and Bell sparrows were seen and heard singing.

The following 49 species were observed:

Turkey vulture; Cooper, red-tl., pigeon, and sparrow hawk; Calif. quail; m. dove; poor-will; white-throated swift; Anna hummingbird; red-sh. flicker; Calif. and Nuttall woodpecker; west. kingbird; ash-thr. flycatcher; black, and Say phoebe; west. flycatcher; scrub jay; yellow-billed magpie; raven; titmouse; bush-tit; white-br. nuthatch; wren-tit; Bewick, canyon, and rock wren; Calif. thrasher; west. bluebird; west. gnatcatcher; loggerhead shrike; Hutton and warb. vireo; orange-cr. and yellow warbler; west, meadowlark; red-wg., and Brewer blackbird; bl.-headed grosbeak; house finch; green-bk. goldfinch; sp., and br. towhee; lark, rufous-cr. and Bell sparrow; Oregon junco; song sparrow.

We hope more people will turn out for the next overnight trip; the fun of a one-day field trip is trebled. A sleeping bag is the main requirement; the bag can be rented if you do not own one.

— HARRY C. ADAMSON, *Leader and Historian*

May — ST. MARY'S COLLEGE — Trip

On Sunday, May 13, the trip to St. Mary's College and vicinity attracted about 45 birders. The morning was cool and cloudy, then it cleared up for lunch and the hike up Las Trampas Canyon, and ended up with showers on the way home. A pair of horned owls was seen in the eucalyptus grove along the main highway, and later a half-grown young one was found below. The prize bird of the day was a phainopepla seen by the Sathers near the ranch houses up the canyon. A pair of golden eagles flew over during lunch. Cowbirds were unusually numerous. Nests located included a western flycatcher, western bluebird, house finch and two house wrens. One of the latter was in a ruptured volley ball atop a fence post. The trip was ably led by Carl Carson. Sixty-four species were reported, as follows: pied-b. grebe; gt. bl. heron; t. vulture; red-tl. and sparrow hawk; golden eagle; Cal. quail; coot; killdeer; spotted sandpiper; m. dove; horned owl; Anna and Allen hummingbird; red-sh. flicker; downy

and Nuttall woodpecker; ash-th. and west. flycatcher; bk. phoebe; west. wood pewee; horned lark; rough-wg., barn and cliff swallow; Steller and scrub jay; pl. titmouse; bush-tit; wh.-br. nuthatch; wren-tit; house and Bewick wren; robin; olive-br. (russet) thrush; west. bluebird; cedar waxwing; phainopepla; Hutton, solitary and warb. vireo; orange-cr., yellow and pileol. warbler; west. meadowlark; redwing and Brewer blackbird; cowbird; west. tanager, bl. head. grosbeak; lazuli bunting; purple and house finch; common, gr. bk., and Lawrence goldfinch; sp. and brown towhee; Oregon junco; grasshopper, lark, chipping, wh.-cr. and song sparrow. — A. LAURENCE CURL, *Historian*

JUNE MEETING

The 405th meeting of the Golden Gate Audubon Society will be held on June 14th in the Assembly Hall of the San Francisco Public Library, Civic Center, at 7:30 p.m. Following the business meeting, Mr. John Thomas Howell, curator of Botany, California Academy of Sciences, and author of "Marin Flora" will speak on TREES OF CALIFORNIA, illustrated with color slides.

The public is invited. No-host dinner at Hotel Whitcomb at 6 p.m.

— MRS. FRANK A. SCOTT, *Program Chairman*

June — TENNESSEE COVE — Trip

Sunday, June 10, to Tennessee Cove, Marin Co. Note that this trip is on the week-end before the monthly meeting. A variety of habitats are included from Richardson Bay to the sea cliffs where we may find cormorants and other sea birds nesting. In 1949 a huge flock of shearwaters were seen off shore. Meet at the Associated service station at the south end of Richardson Bay bridge at 8:45 a.m. From San Francisco take 8:15 Bolinas bus. Bring interested friends.

June — CALAVERAS BIG TREES — Trip

Saturday and Sunday, June 16-17, to Calaveras Big Trees State Park. Come and visit the spectacular grove of big trees and get better acquainted with the birds of around 5000 feet in the Sierra Nevada. Driving distance from Oakland about 140 miles. The park is an elegant place for camping. There is a hotel in Angels Camp 24 miles west; cabins may be available closer, at Murphys or Arnold. There will be hikes on Saturday at 2:00 p.m. and Sunday at 8:30 a.m., starting at the park headquarters. Leader, Larry Curl, LA. 6-7004. Bring camping equipment (the nights may be chilly) and food for 4 meals, binoculars, etc.

June — LAND'S END — Trip

Saturday, June 30, to the Land's End area in north-west San Francisco. Meet at Point Lobos Ave. and Camino Del Mar at 8:30 a.m. The territory to be covered will probably include Lincoln Park, Land's End, Sutro Heights and the Cliff House. Nesting pigeon guillemots are usually a feature of this trip. Leader, Edward A. Mayers, WE. 1-2447.

— A. LAURENCE CURL, *Chairman*,
Field Trips Committee.

Golden Gate Audubon Society

Organized January 25, 1917

For the Study and the Protection of Birds

Branch of National Audubon Society

President... Mrs. T. Eric Reynolds.....140 Estates Drive, Piedmont 11, AN. 1-7121
Cor. Sec. ... Mr. Edward A. Mayers.....2695 Greenwich St., San Francisco 23, WE. 1-2447
Treasurer... Miss Ivander MacIver.....2414 Telegraph Ave., Berkeley 4, AS. 3-8398
Editor..... Miss Minnie H. Young.....2726 Prince Street, Berkeley 5, HU. 3-3180

Monthly meetings second Thursday, 7:30 p. m.

Joint Membership, Local & National \$5.00 per Year, includes Audubon Magazine